```
PPPPPPPPPPPP     RRRRRRRRRRRR     TTTTTTTTTTTTTTT     SSSSSSSSSSSS  MMM         MMM  BBBBBBBBBBBB
PPPPPPPPPPPP     RRRRRRRRRRRR     TTTTTTTTTTTTTTT     SSSSSSSSSSSS  MMM         MMM  BBBBBBBBBBBB
PPPPPPPPPPPP     RRRRRRRRRRRR     TTTTTTTTTTTTTTT     SSSSSSSSSSSS  MMM         MMM  BBBBBBBBBBBB
PPP         PPP  RRR         RRR         TTT         SSS           MMMMMM   MMMMMM  BBB         BBB
PPP         PPP  RRR         RRR         TTT         SSS           MMMMMM   MMMMMM  BBB         BBB
PPP         PPP  RRR         RRR         TTT         SSS           MMMMMM   MMMMMM  BBB         BBB
PPP         PPP  RRR         RRR         TTT         SSS           MMM   MMM   MMM  BBB         BBB
PPP         PPP  RRR         RRR         TTT         SSS           MMM   MMM   MMM  BBB         BBB
PPP         PPP  RRR         RRR         TTT         SSS           MMM   MMM   MMM  BBB         BBB
PPPPPPPPPPPP     RRRRRRRRRRRR             TTT            SSSSSSSSS  MMM         MMM  BBBBBBBBBBBB
PPPPPPPPPPPP     RRRRRRRRRRRR             TTT            SSSSSSSSS  MMM         MMM  BBBBBBBBBBBB
PPPPPPPPPPPP     RRRRRRRRRRRR             TTT            SSSSSSSSS  MMM         MMM  BBBBBBBBBBBB
PPP              RRR   RRR                TTT                   SSS MMM         MMM  BBB         BBB
PPP              RRR   RRR                TTT                   SSS MMM         MMM  BBB         BBB
PPP              RRR   RRR                TTT                   SSS MMM         MMM  BBB         BBB
PPP              RRR      RRR             TTT                   SSS MMM         MMM  BBB         BBB
PPP              RRR      RRR             TTT                   SSS MMM         MMM  BBB         BBB
PPP              RRR      RRR             TTT                   SSS MMM         MMM  BBB         BBB
PPP              RRR         RRR          TTT         SSSSSSSSSSSS  MMM         MMM  BBBBBBBBBBBB
PPP              RRR         RRR          TTT         SSSSSSSSSSSS  MMM         MMM  BBBBBBBBBBBB
PPP              RRR         RRR          TTT         SSSSSSSSSSSS  MMM         MMM  BBBBBBBBBBBB
```

```
MM      MM  EEEEEEEEEE    SSSSSSSS    SSSSSSSS    AAAAAA      GGGGGGGG  EEEEEEEEEE
MM      MM  EEEEEEEEEE    SSSSSSSS    SSSSSSSS    AAAAAA      GGGGGGGG  EEEEEEEEEE
MMMM  MMMM  EE          SS          SS          AA      AA  GG          EE
MMMM  MMMM  EE          SS          SS          AA      AA  GG          EE
MM  MM  MM  EE          SS          SS          AA      AA  GG          EE
MM  MM  MM  EE          SS          SS          AA      AA  GG          EE
MM      MM  EEEEEEEE      SSSSSS      SSSSSS    AA      AA  GG          EEEEEEEE
MM      MM  EEEEEEEE      SSSSSS      SSSSSS    AA      AA  GG          EEEEEEEE
MM      MM  EE                  SS          SS  AAAAAAAAAA  GG  GGGGGG  EE
MM      MM  EE                  SS          SS  AAAAAAAAAA  GG  GGGGGG  EE
MM      MM  EE                  SS          SS  AA      AA  GG      GG  EE              ....
MM      MM  EE                  SS          SS  AA      AA  GG      GG  EE              ....
MM      MM  EEEEEEEEEE  SSSSSSSS    SSSSSSSS    AA      AA    GGGGGG    EEEEEEEEEE      ....
MM      MM  EEEEEEEEEE  SSSSSSSS    SSSSSSSS    AA      AA    GGGGGG    EEEEEEEEEE      ....


LL            IIIIII      SSSSSSSS
LL            IIIIII      SSSSSSSS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II      SS
LL              II        SSSSSS
LL              II        SSSSSS
LL              II              SS
LL              II              SS
LL              II              SS
LL              II              SS
LLLLLLLLLL    IIIIII    SSSSSSSS
LLLLLLLLLL    IIIIII    SSSSSSSS
```

```
0 MODULE MESSAGE (%TITLE 'Print Symbiont -- message routines'
0         IDENT = 'V04-000',
0         ADDRESSING_MODE (EXTERNAL = GENERAL)
0         ) =
1 BEGIN
1
1 !
1 !******************************************************************************
1 !*                                                                            *
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1 !*                                                                            *
1 !******************************************************************************
1 !
1
1 !++
1 ! FACILITY:
1 !       Print Symbiont.
1 !
1 ! ABSTRACT:
1 !       Processes messages received from the job controller.
1 !
1 ! ENVIRONMENT:
1 !       VAX/VMS user mode.
1 !--
1 !
1 ! AUTHOR: G. Robert, CREATION DATE: 31-Aug-1982
1 !
1 ! MODIFIED BY:
1 !
1 !       3B-007  RRB3007         Rowland R. Bradley      20-Jul-1984
1 !               Change Signal_Stop(...,PSM$_INVREQCOD) to CODEERR_.
1 !
1 !       3B-006  GRR3006         Gregory R. Robert       29-Apr-1984
1 !               FT2 bugfixes.  Call output routine with explicit OPEN
1 !               and CLOSE functions.
1 !
1 !       3B-005  RRB3005         Rowland R. Bradley      27-Apr-1984
1 !               Properly increment the job burst character.  Added the
1 !               reference to last_entry_number.
1 !
```

```
;   58          0058  1 !        3B-004  GRR3004          Gregory R. Robert        23-Mar-1984
;   59          0059  1 !                Replace burst_character with job_burst_char and
;   60          0060  1 !                file_burst_char.
;   61          0061  1 !
;   62          0062  1 !        3B-003  GRR3003          Gregory R. Robert        23-Aug-1983
;   63          0063  1 !                Bugfixes, page_setup_modules, form_setup_modules,
;   64          0064  1 !                sheet_feed, symbiont initiated pause_task and stop_stream,
;   65          0065  1 !                hangup code, read and write item services
;   66          0066  1 !
;   67          0067  1 !        3B-002  GRR3002          Gregory R. Robert        03-Aug-1983
;   68          0068  1 !                Rewrite for new design.
;   69          0069  1 !
;   70          0070  1 !        3B-001  GRR3001          Gregory R. Robert        23-Jul-1983
;   71          0071  1 !                Created new module.
;   72          0072  1 !
;   73          0073  1 !
;   74          0074  1 !**
```

```
;  76          0075  1 LIBRARY 'SYS$LIBRARY:LIB';
;  77          0076  1 REQUIRE 'LIB$:SMBDEF';
;  78          0568  1 REQUIRE 'SRC$:SMBREQ';
;  79          1025  1
;  80          1026  1 EXTERNAL ROUTINE
;  81          1027  1         PSM$ALLOCATE_SCB,
;  82          1028  1         PSM$FUNCTION_DISPATCH,
;  83          1029  1         PSM$INITIALIZE_SCB,
;  84          1030  1         SMB$READ_MESSAGE,
;  85          1031  1         PSM$RESET_SCB,
;  86          1032  1         SMB$SEND_TO_JOBCTL,
;  87          1033  1         PSM$STORE_ERRORS,
;  88          1034  1         PSM$UPDATE_SCB
;  89          1035  1         ;
;  90          1036  1
;  91          1037  1 EXTERNAL
;  92          1038  1         PSM$GL_SCBVEC    : VECTOR,
;  93          1039  1         PSM$SRV : BLOCKVECTOR[,SRV_S_SRV, BYTE]
;  94          1040  1         ;
;  95          1041  1
;  96          1042  1 FORWARD ROUTINE
;  97          1043  1         PSM$RECEIVE_MESSAGE_AST ,
;  98          1044  1
;  99          1045  1         KEEP_ALIVE                : NOVALUE,
; 100          1046  1         NOTIFY_ALL                ,
; 101          1047  1         PAUSE_TASK                : NOVALUE,
; 102          1048  1         RESUME_TASK               : NOVALUE,
; 103          1049  1         START_STREAM              : NOVALUE,
; 104          1050  1         START_TASK                : NOVALUE,
; 105          1051  1         STOP_STREAM               : NOVALUE,
; 106          1052  1         STOP_TASK                 : NOVALUE
; 107          1053  1         ;
; 108          1054  1
; 109          1055  1 OWN
; 110          1056  1         TIMER_ACTIVE     : WORD
; 111          1057  1         ;
```

```
%SBTTL 'RECEIVE_MESSAGE_AST'
! Functional Description:
!                 ?desc
!
! Formal Parameters:
!                 ?desc
! Implicit Inputs:
!                 none
!
! Implicit Outputs:
!                 none
!
! Returned Value:
!                 none
!
! Side Effects:
!                 none
!--
GLOBAL ROUTINE PSM$RECEIVE_MESSAGE_AST
        =
BEGIN

OWN
        MSGSRV_TABLE    : VECTOR [8] PSECT (CODE) PRESET (
            [0]                         = 0,
            [SMBMSG$K_PAUSE_TASK]       = PAUSE_TASK,
            [SMBMSG$K_RESET_STREAM]     = STOP_STREAM,
            [SMBMSG$K_RESUME_TASK]      = RESUME_TASK,
            [SMBMSG$K_START_STREAM]     = START_STREAM,
            [SMBMSG$K_START_TASK]       = START_TASK,
            [SMBMSG$K_STOP_STREAM]      = STOP_STREAM,
            [SMBMSG$K_STOP_TASK]        = STOP_TASK)
        ;

LOCAL
        MSG_DESC        : $DYNAMIC_DESC,
        NOTIFY_STATUS   ,
        REQUEST         ,
        SCB             : REF $BBLOCK,
        STREAM
        ;

SIGNAL_IF_ERROR_ (SMB$READ_MESSAGE (STREAM, MSG_DESC, REQUEST));

IF .REQUEST GEQU %ALLOCATION (MSGSRV_TABLE) / 4
OR .MSGSRV_TABLE [.REQUEST] EQL 0
THEN
    CODEERR_ ;

SCB = .PSM$GL_SCBVEC [.STREAM];

IF .SCB EQL 0
THEN
    BEGIN
    PSM$ALLOCATE_SCB (SCB);
    PSM$INITIALIZE_SCB (.SCB);
    PSM$GL_SCBVEC [.STREAM] = .SCB;
```

```
;  170          1115  3      SCB[PSM$L_STREAM_INDEX] = .STREAM;
;  171          1116  3      SCB[PSM$B_FILE_BURST_CHAR] = %C '2';
;  172          1117  3      SCB[PSM$B_JOB_BURST_CHAR] = %C '9';
;  173          1118  2      END;
;  174          1119  2
;  175          1120  2
;  176          1121  2 IF .REQUEST EQL SMBMSG$K_START_STREAM
;  177          1122  2 THEN
;  178          1123  3      BEGIN
;  179          1124  3      VECTOR [SCB[PSM$T_CONDITION_AREA],0] = 0;
;  180          1125  3      SCB[PSM$L_SERVICE_STATUS] = SS$_NORMAL;
;  181          1126  2      END;
;  182          1127  2
;  183          1128  2
;  184          1129  2 IF .REQUEST EQL SMBMSG$K_START_TASK
;  185          1130  2 THEN
;  186          1131  2      PSM$RESET_SCB (.SCB);
;  187          1132  2
;  188          1133  2
;  189          1134  2 ! If currently paused by job controller then clear pending
;  190          1135  2 !
;  191          1136  2 IF TESTBITSC (SCB[PSM$V_RESUME_WAIT])
;  192          1137  2 THEN
;  193          1138  2      SCB[PSM$L_SERVICE_STATUS] = SS$_NORMAL;
;  194          1139  2
;  195          1140  2
;  196          1141  2 SCB [PSM$L_REQUEST_RESPONSE] = .REQUEST;
;  197          1142  2 PSM$UPDATE_SCB (.SCB, MSG_DESC);
;  198          1143  2
;  199          1144  2 NOTIFY_STATUS = NOTIFY_ALL (.SCB, .REQUEST);
;  200          1145  2
;  201          1146  2 IF NOT .NOTIFY_STATUS THEN PSM$STORE_ERRORS (SCB, .NOTIFY_STATUS);
;  202          1147  2
;  203          1148  2 BLISS (.MSGSRV_TABLE [.REQUEST], .SCB);
;  204          1149  2
;  205          1150  2 SS$_NORMAL
;  206          1151  2
;  207          1152  1 END;


                                                                        .TITLE  MESSAGE Print Symbiont -- message routines
                                                                        .IDENT  \V04-000\

                                                                        .PSECT  DATA,NOEXE,2

                                                              00000 TIMER_ACTIVE:
                                                                        .BLKB   2

                                                                        .PSECT  CODE,NOWRT,2

                                                   00000000   00000 MSGSRV_TABLE:
                                                                        .LONG   0
00000000V 00000000V 00000000V 00000000V 00000000V  00000000V 00004      .ADDRESS PAUSE_TASK, STOP_STREAM, RESUME_TASK, -
                                                   00000000V 0001C              START_STREAM, START_TASK, STOP_STREAM, -
                                                                                STOP_TASK

                                                                        .EXTRN  BAS$EDIT, LBR$CLOSE
```

```
                                                        .EXTRN  LBR$GET_RECORD, LBR$INI_CONTROL
                                                        .EXTRN  LBR$LOOKUP_KEY, LBR$OPEN
                                                        .EXTRN  LBR$RET_RMSSTV, LBR$SET_LOCATE
                                                        .EXTRN  LIB$TRIM_FILESPEC
                                                        .EXTRN  LIB$GET_VM, LIB$FREE_VM
                                                        .EXTRN  STR$ANALYZE_SDESC
                                                        .EXTRN  STR$ANALYZE_SDESC_R1
                                                        .EXTRN  STR$APPEND, STR$CONCAT
                                                        .EXTRN  STR$COPY_DX, STR$COPY_R
                                                        .EXTRN  STR$FREE1_DX, STR$FREE1_DX_R4
                                                        .EXTRN  STR$GET1_DX, STR$LEFT
                                                        .EXTRN  STR$PREFIX, STR$RIGHT
                                                        .EXTRN  PSM$S_HANGUP_DISPATCH_ENTRY
                                                        .EXTRN  PSM$_BUFFEROVF, PSM$_EOF
                                                        .EXTRN  PSM$_ESCAPE, PSM$_FLUSH
                                                        .EXTRN  PSM$_FUNNOTSUP, PSM$_INVITMCOD
                                                        .EXTRN  PSM$_INVVMSOSC, PSM$_MODNOTFND
                                                        .EXTRN  PSM$_NEWPAGE, PSM$_NOFILEID
                                                        .EXTRN  PSM$_OSCTOOLON, PSM$_PENDING
                                                        .EXTRN  PSM$_SUSPEND, PSM$_TOOMANYLEV
                                                        .EXTRN  SMB$_INVSTMNBR, SMB$_INVSTRLEV
                                                        .EXTRN  SMB$_NOMOREITEMS
                                                        .EXTRN  PSM$ALLOCATE_SCB
                                                        .EXTRN  PSM$FUNCTION_DISPATCH
                                                        .EXTRN  PSM$INITIALIZE_SCB
                                                        .EXTRN  SMB$READ_MESSAGE
                                                        .EXTRN  PSM$RESET_SCB, SMB$SEND_TO_JOBCTL
                                                        .EXTRN  PSM$STORE_ERRORS
                                                        .EXTRN  PSM$UPDATE_SCB, PSM$GL_SCBVEC
                                                        .EXTRN  PSM$SRV

                                  003C 00000            .ENTRY  PSM$RECEIVE_MESSAGE_AST, Save R2,R3,R4,R5   ; 1076
            5E                  14   C2 00002           SUBL2   #20, SP                                     ;
      0C    AE 020E0000         8F   D0 00005           MOVL    #34471936, MSG_DESC                         ; 1093
                                10   AE D4 0000D         CLRL    MSG_DESC+4                                  ;
                                5E   DD 00010           PUSHL   SP                                          ; 1100
                                10   AE 9F 00012         PUSHAB  MSG_DESC                                    ;
                                0C   AE 9F 00015         PUSHAB  STREAM                                      ;
00000000G   00                  03   FB 00018           CALLS   #3, SMB$READ_MESSAGE                        ;
            52                  50   D0 0001F           MOVL    R0, STATUS                                  ;
            09                  52   E8 00022           BLBS    STATUS, 1$                                  ;
                                52   DD 00025           PUSHL   STATUS                                      ;
00000000G   00                  01   FB 00027           CALLS   #1, LIB$SIGNAL                              ;
            54                  6E   D0 0002E 1$:       MOVL    REQUEST, R4                                 ; 1102
            08                  54   D1 00031           CMPL    R4, #8                                      ;
                                06   1E 00034           BGEQU   2$                                          ;
                                A6 AF44  D5 00036        TSTL    MSGSRV_TABLE[R4]                            ; 1103
                                0F   12 0003A           BNEQ    3$                                          ;
                                01   DD 0003C 2$:       PUSHL   #1                                          ; 1104
                   01061154     8F   DD 0003E           PUSHL   #17174868                                   ;
00000000G   00                  02   FB 00044           CALLS   #2, LIB$STOP                                ;
            53          04      AE   D0 0004B 3$:       MOVL    STREAM, R3                                  ; 1107
            55 00000000G0043    DE 0004F                MOVAL   PSM$GL_SCBVEC[R3], R5                       ;
      08    AE                  65   D0 00057           MOVL    (R5), SCB                                   ;
                                2A   12 0005B           BNEQ    4$                                          ; 1109
                                08   AE 9F 0005D         PUSHAB  SCB                                         ; 1112
00000000G   00                  01   FB 00060           CALLS   #1, PSM$ALLOCATE_SCB                        ;
```

```
                        52      08   AE  D0 00067          MOVL    SCB, R2                          ; 1113
                                     52  DD 0006B          PUSHL   R2                               ;
                00000000G  00        01  FB 0006D          CALLS   #1, PSM$INITIALIZE_SCB           ;
                           65        52  D0 00074          MOVL    R2, (R5)                         ; 1114
                    022C   C2        53  D0 00077          MOVL    R3, 556(R2)                      ; 1115
                    02A4   C2      5A    8F  90 0007C       MOVB    #90, 676(R2)                     ; 1116
                    02A6   C2        39  90 00082          MOVB    #57, 678(R2)                     ; 1117
                           04        54  D1 00087 4$:      CMPL    R4, #4                           ; 1121
                                     0D  12 0008A          BNEQ    5$                               ;
                           50      08   AE  D0 0008C       MOVL    SCB, R0                          ; 1124
                                 028E   C0  D4 00090       CLRL    654(R0)                          ;
                    0220   C0        01  D0 00094          MOVL    #1, 544(R0)                      ; 1125
                           05        54  D1 00099 5$:      CMPL    R4, #5                           ; 1129
                                     0A  12 0009C          BNEQ    6$                               ;
                                 08   AE  DD 0009E         PUSHL   SCB                              ; 1131
                00000000G  00        01  FB 000A1          CALLS   #1, PSM$RESET_SCB                ;
                           53      08   AE  D0 000A8 6$:    MOVL    SCB, R3                          ; 1136
                05     10  A3        0B  E5 000AC          BBCC    #11, 16(R3), 7$                  ;
                    0220   C3        01  D0 000B1          MOVL    #1, 544(R3)                      ; 1138
                    0144   C3        54  D0 000B6 7$:      MOVL    R4, 324(R3)                      ; 1141
                                 0C   AE  9F 000BB         PUSHAB  MSG_DESC                         ; 1142
                                     53  DD 000BE          PUSHL   R3                               ;
                00000000G  00        02  FB 000C0          CALLS   #2, PSM$UPDATE_SCB               ;
                                     18  BB 000C7          PUSHR   #^M<R3,R4>                       ; 1144
                    0000V  CF        02  FB 000C9          CALLS   #2, NOTIFY_ALL                   ;
                           0C        50  E8 000CE          BLBS    NOTIFY_STATUS, 8$                ; 1146
                                     50  DD 000D1          PUSHL   NOTIFY_STATUS                    ;
                                 0C   AE  9F 000D3         PUSHAB  SCB                              ;
                00000000G  00        02  FB 000D6          CALLS   #2, PSM$STORE_ERRORS             ;
                           50     FEFE CF44  D0 000DD 8$:   MOVL    MSGSRV_TABLE[R4], R0             ; 1148
                                 08   AE  DD 000E3         PUSHL   SCB                              ;
                           60        01  FB 000E6          CALLS   #1, (R0)                         ;
                           50        01  D0 000E9          MOVL    #1, R0                           ; 1152
                                         04 000EC          RET                                      ;

; Routine Size:  237 bytes,    Routine Base:  CODE + 0020
```

```
%SBTTL 'KEEP_ALIVE'
! Functional Description:
!                 ?desc
!
! Formal Parameters:
!                 ?desc
! Implicit Inputs:
!                 none
!
! Implicit Outputs:
!                 none
!
! Returned Value:
!                 none
!
! Side Effects:
!                 none
!--
ROUTINE KEEP_ALIVE (
        STARTUP
        ) : NOVALUE =
BEGIN

PARAMETER_INDEX_ (STARTUP);

LOCAL
        BUSY_STREAM     : INITIAL (0)
        ;

DECR I FROM PSM$K_MAXSTREAMS - 1
DO
    BEGIN
    LOCAL SCB   : REF $BBLOCK;
    SCB = .PSM$GL_SCBVEC [.I];
    IF .SCB NEQ 0
    THEN
        IF .SCB[PSM$V_BUSY]
        THEN
            BEGIN
            BUSY_STREAM = 1;
            IF .SCB[PSM$L_REQUEST_RESPONSE] NEQ SMBMSG$K_PAUSE_TASK
            AND NOT .SCB[PSM$V_SUPPRESS_OUTPUT]
            THEN
                IF .SCB[PSM$L_KEEP_ALIVE] EQL .SCB[PSM$L_OUTPUT_QIOS]
                THEN
                    BEGIN
                    IF TESTBITCS
                        ($BBLOCK[SCB[PSM$L_DEVICE_STATUS],SMBMSG$V_STALLED])
                    THEN
                        SMB$SEND_TO_JOBCTL (
                            SCB[PSM$L_STREAM_INDEX],    ! - stream number
                            0,                          ! - asynchronous response
                            0,                          ! - no accounting
                            0,                          ! - no checkpoint
                            SCB[PSM$L_DEVICE_STATUS]    ! - device status
                                );
                    END
```

```
;  266   1210  4                 ELSE
;  267   1211  4                     SCB[PSM$L_KEEP_ALIVE] = .SCB[PSM$L_OUTPUT_QIOS];
;  268   1212  3                 END;
;  269   1213  2             END;
;  270   1214  2
;  271   1215  2 IF .BUSY_STREAM
;  272   1216  2 THEN
;  273   1217  3             BEGIN
;  274   1218  3             SIGNAL_IF_ERROR_ ($SETIMR (DAYTIM=UPLIT(-300000000,-1), ASTADR=KEEP_ALIVE));
;  275   1219  3             TIMER_ACTIVE = T;
;  276   1220  3             END
;  277   1221  2 ELSE
;  278   1222  2             TIMER_ACTIVE = 0;
;  279   1223  2
;  280   1224  1 END;


                                                 0010D          .BLKB   3
                                FFFFFFFF  EE1E5D00  00110 P.AAA:  .LONG   -300000000, -1                                  ;

                                                                 .EXTRN  SYS$SETIMR

                                                  000C 00000 KEEP_ALIVE:
                                                                 .WORD   Save R2,R3                                        ; 1171
                                 52            1F  7D 00002      MOVQ    #31, I                                          ; 1182
                                 50 00000000G0042  D0 00005 1$:  MOVL    PSM$GL_SCBVEC[I], SCB                           ; 1186
                                               3D  13 0000D      BEQL    3$                                              ; 1187
                     38      10  A0            01  E1 0000F      BBC     #1, 16(SCB), 3$                                 ; 1189
                                 53            01  D0 00014      MOVL    #1, BUSY_STREAM                                 ; 1192
                                 01      0144  C0  D1 00017      CMPL    324(SCB), #1                                    ; 1193
                                               2E  13 0001C      BEQL    3$                                              ;
                     29      11  A0            06  E0 0001E      BBS     #6, 17(SCB), 3$                                 ; 1194
                           01E8  C0      01B8  C0  D1 00023      CMPL    440(SCB), 488(SCB)                              ; 1196
                                               19  12 0002A      BNEQ    2$                                              ;
                     1B      54  A0            04  E2 0002C      BBSS    #4, 84(SCB), 3$                                 ; 1200
                                           54  A0  9F 00031      PUSHAB  84(SCB)                                         ; 1207
                                               7E  7C 00034      CLRQ    -(SP)                                           ;
                                               7E  D4 00036      CLRL    -(SP)                                           ;
                                      022C     C0  9F 00038      PUSHAB  556(SCB)                                        ; 1203
                        00000000G  00          05  FB 0003C      CALLS   #5, SMB$SEND_TO_JOBCTL                          ; 1207
                                               07  11 00043      BRB     3$                                              ; 1196
                           01B8  C0      01E8  C0  D0 00045 2$:  MOVL    488(SCB), 440(SCB)                              ; 1211
                                 B6            52  F4 0004C 3$:  SOBGEQ  I, 1$                                          ; 1182
                                 26            53  E9 0004F      BLBC    BUSY_STREAM, 5$                                 ; 1215
                                               7E  D4 00052      CLRL    -(SP)                                           ; 1218
                                           A9  AF  9F 00054      PUSHAB  KEEP_ALIVE                                      ;
                                           9E  AF  9F 00057      PUSHAB  P.AAA                                           ;
                                               7E  D4 0005A      CLRL    -(SP)                                           ;
                        00000000G  00          04  FB 0005C      CALLS   #4, SYS$SETIMR                                  ;
                                 52            50  D0 00063      MOVL    R0, STATUS                                      ;
                                 09            52  E8 00066      BLBS    STATUS, 4$                                      ;
                                               52  DD 00069      PUSHL   STATUS                                          ;
                        00000000G  00          01  FB 0006B      CALLS   #1, LIB$SIGNAL                                  ;
                            0000'  CF          01  B0 00072 4$:  MOVW    #1, TIMER_ACTIVE                                ; 1219
                                               04  04 00077      RET                                                     ; 1215
                                      0000'    CF  B4 00078 5$:  CLRW    TIMER_ACTIVE                                    ; 1222
```

```
                                        04 0007C        RET                                     ; 1224

; Routine Size:  125 bytes,    Routine Base:  CODE + 0118
```

```
%SBTTL 'NOTIFY_ALL'
! Functional Description:
!                 ?desc
!
! Formal Parameters:
!                 ?desc
! Implicit Inputs:
!                 none
!
! Implicit Outputs:
!                 none
!
! Returned Value:
!                 none
!
! Side Effects:
!                 none
!--
ROUTINE NOTIFY_ALL (
        SCB     : REF $BBLOCK,
        REQUEST
        ) =
BEGIN
!
! Generate a table that converts SMBMSG$ request codes to their
! corresponding PSM$K_FUNC codes
!
OWN
        REQFUN_TABLE    : VECTOR [8] PSECT (CODE) PRESET (
            [0]                         = 0,
            [SMBMSG$K_PAUSE_TASK]       = PSM$K_PAUSE_TASK,
            [SMBMSG$K_RESET_STREAM]     = PSM$K_STOP_STREAM,
            [SMBMSG$K_RESUME_TASK]      = PSM$K_RESUME_TASK,
            [SMBMSG$K_START_STREAM]     = PSM$K_START_STREAM,
            [SMBMSG$K_START_TASK]       = PSM$K_START_TASK,
            [SMBMSG$K_STOP_STREAM]      = PSM$K_STOP_STREAM,
            [SMBMSG$K_STOP_TASK]        = PSM$K_STOP_TASK)
        ;

LOCAL SERVICE_STATUS : INITIAL (SS$_NORMAL);

INCRU I TO PSM$K_MAX - 1
DO
    BEGIN
    BIND SERVICE = PSM$SRV[.I, 0,0,0,0] : $BBLOCK;

    IF .SERVICE[SRV_A_SERVICE] NEQ 0
    THEN
        SERVICE_STATUS = BLISS (
            .SERVICE[SRV_A_SERVICE],            !  - all services
            SCB,                                !  - SCB address by reference
            SCB[PSM$R_USER_CONTEXT_AREA],       !  - user context area
            REQFUN_TABLE[.REQUEST],             !  - request --> function
            0,                                  !  - <not used>
            0                                   !  - <not used>
            );
```

```
;  339          1282  3      IF NOT .SERVICE_STATUS THEN EXITLOOP;
;  340          1283  3      IF .SERVICE_STATUS EQL PSM$_PENDING THEN CODEERR_ ;
;  341          1284  3
;  342          1285  2      END;
;  343          1286  2
;  344          1287  2 .SERVICE_STATUS
;  345          1288  2
;  346          1289  1 END;


                                                    00195          .BLKB   3
00000010  0000000F  0000000E  00000012  0000000C  00000000  00198 REQFUN_TABLE:
                                                                   .LONG   0, 12, 18, 14, 15, 16, 18, 17                    ;
                                          00000011  00000012  001B0                                                         ;


                                                       000C 00000 NOTIFY_ALL:
                                                                   .WORD   Save R2,R3                                       ; 1243
                                        53             01  D0 00002        MOVL    #1, SERVICE_STATUS                       ; 1261
                                                       52  D4 00005        CLRL    I                                        ; 1266
                          50            52             04  78 00007 1$:    ASHL    #4, I, R0                                ; 1269
                                           00000000G0040  9F 0000B        PUSHAB  PSM$SRV[R0]                              ; 1271
                                        51             9E  D0 00012        MOVL    @(SP)+, R1                               ;
                                                       1C  13 00015        BEQL    2$                                       ;
                                                       7E  7C 00017        CLRQ    -(SP)                                    ; 1277
                                        50        08   AC  D0 00019        MOVL    REQUEST, R0                              ;
                                                  BF AF40  DF 0001D        PUSHAL  REQFUN_TABLE[R0]                         ;
                          7E        04    AC 000002D0   8F  C1 00021        ADDL3   #720, SCB, -(SP)                         ; 1276
                                                  04   AC  9F 0002A        PUSHAB  SCB                                      ; 1273
                                        61             05  FB 0002D        CALLS   #5, (R1)                                 ; 1277
                                        53             50  D0 00030        MOVL    R0, SERVICE_STATUS                       ;
                                        1F             53  E9 00033 2$:    BLBC    SERVICE_STATUS, 4$                       ; 1282
                   00000000G            8F             53  D1 00036        CMPL    SERVICE_STATUS, #PSM$_PENDING            ; 1283
                                                       0F  12 0003D        BNEQ    3$                                       ;
                                                       01  DD 0003F        PUSHL   #1                                       ;
                                           01061154    8F  DD 00041        PUSHL   #17174868                                ;
                   00000000G            00             02  FB 00047        CALLS   #2, LIB$STOP                             ;
                                                       52  D6 0004E 3$:    INCL    I                                        ; 1266
                                        16             52  D1 00050        CMPL    I, #22                                   ;
                                                       B2  1B 00053        BLEQU   1$                                       ;
                                        50             53  D0 00055 4$:    MOVL    SERVICE_STATUS, R0                       ; 1289
                                                       04  00058           RET                                              ;

; Routine Size:  89 bytes,    Routine Base:  CODE + 01B8
```

```
;  348          1290  1 %SBTTL 'PAUSE_TASK'
;  349          1291  1 ! Functional Description:
;  350          1292  1 !                 ?desc
;  351          1293  1 !
;  352          1294  1 ! Formal Parameters:
;  353          1295  1 !                 ?desc
;  354          1296  1 ! Implicit Inputs:
;  355          1297  1 !                 none
;  356          1298  1 !
;  357          1299  1 ! Implicit Outputs:
;  358          1300  1 !                 none
;  359          1301  1 !
;  360          1302  1 ! Returned Value:
;  361          1303  1 !                 none
;  362          1304  1 !
;  363          1305  1 ! Side Effects:
;  364          1306  1 !                 none
;  365          1307  1 !--
;  366          1308  1 ROUTINE PAUSE_TASK (
;  367          1309  1         SCB     : REF $BBLOCK
;  368          1310  1         )       : NOVALUE =
;  369          1311  2 BEGIN
;  370          1312  2
;  371          1313  2 REQUEST_FLAG_ (PAUSE_COMPLETE) = 1;
;  372          1314  2
;  373          1315  2 SCB[PSM$L_STOP_PAGE] = .SCB[PSM$L_PAGE] + 1;
;  374          1316  2
;  375          1317  2 PSM$FUNCTION_DISPATCH (.SCB);
;  376          1318  2
;  377          1319  1 END;


                                    0000 00000 PAUSE_TASK:
                                                       .WORD   Save nothing                                  ; 1308
                        50      04   AC  D0 00002       MOVL    SCB, R0                                       ; 1313
                 0140   C0           02  88 00006       BISB2   #2, 320(R0)                                   ;
          0228   C0     01EC   C0    01  C1 0000B       ADDL3   #1, 492(R0), 552(R0)                          ; 1315
                                     50  DD 00013       PUSHL   R0                                            ; 1317
             00000000G  00           01  FB 00015       CALLS   #1, PSM$FUNCTION_DISPATCH                     ;
                                         04 0001C       RET                                                   ; 1319

; Routine Size:  29 bytes,    Routine Base:  CODE + 0211
```

```
%SBTTL 'RESUME_TASK'
! Functional Description:
!                 ?desc
!
! Formal Parameters:
!                 ?desc
! Implicit Inputs:
!                 none
!
! Implicit Outputs:
!                 none
!
! Returned Value:
!                 none
!
! Side Effects:
!                 none
!--
ROUTINE RESUME_TASK (
        SCB     : REF $BBLOCK
        )       : NOVALUE =
BEGIN

LOCAL
        TARGET  : SIGNED
        ;

! First compute the start page
!

! Assume the current page
!
TARGET = .SCB[PSM$L_PAGE];


! START /QUEUE /TOP_OF_FORM
!
IF TESTBITSC (REQUEST_FLAG_ (TOP_OF_FILE)) THEN TARGET = 1;


! START /QUEUE /FORWARD=pages or /BACKWARD=pages
!
IF TESTBITSC (ITEM_PRESENT_ (RELATIVE_PAGE))
THEN
    TARGET = .TARGET + .SCB[PSM$L_RELATIVE_PAGE];


! Range check -- PRINT /PAGES=(first,last)
!
IF .TARGET LSSU 1 THEN TARGET = 1;
IF .TARGET LSSU .SCB[PSM$L_FIRST_PAGE] THEN TARGET = .SCB[PSM$L_FIRST_PAGE];
IF .ITEM_PRESENT_ (LAST_PAGE)
THEN
    IF .TARGET GTRU .SCB[PSM$L_LAST_PAGE] THEN TARGET = .SCB[PSM$L_LAST_PAGE];

SCB[PSM$L_START_PAGE] = .TARGET;
```

```
;  436          1377  2 PSM$FUNCTION_DISPATCH (.SCB);
;  437          1378  2
;  438          1379  1 END;


                                        0000 00000 RESUME_TASK:
                                                          .WORD   Save nothing                                  ; 1338
                          50      04    AC  D0 00002      MOVL    SCB, R0                                       ; 1352
                          51    01EC    C0  D0 00006      MOVL    492(R0), TARGET                               ;
                03    0140  C0          03  E5 0000B      BBCC    #3, 320(R0), 1$                               ; 1357
                          51            01  D0 00011      MOVL    #1, TARGET                                    ;
                05    01B0  C0          2E  E5 00014 1$:  BBCC    #46, 432(R0), 2$                              ; 1362
                          51    013C    C0  C0 0001A      ADDL2   316(R0), TARGET                               ; 1364
                                        03  12 0001F 2$:  BNEQ    3$                                            ; 1369
                          51            01  D0 00021      MOVL    #1, TARGET                                    ;
                      74  A0            51  D1 00024 3$:  CMPL    TARGET, 116(R0)                               ; 1370
                                        04  1E 00028      BGEQU   4$                                            ;
                          51      74    A0  D0 0002A      MOVL    116(R0), TARGET                               ;
                0C    01B3  C0          03  E1 0002E 4$:  BBC     #3, 435(R0), 5$                               ; 1371
                      00B8  C0          51  D1 00034      CMPL    TARGET, 184(R0)                               ; 1373
                                        05  1B 00039      BLEQU   5$                                            ;
                          51    00B8    C0  D0 0003B      MOVL    184(R0), TARGET                               ;
                      0224  C0          51  D0 00040 5$:  MOVL    TARGET, 548(R0)                               ; 1375
                                        50  DD 00045      PUSHL   R0                                            ; 1377
                00000000G   00          01  FB 00047      CALLS   #1, PSM$FUNCTION_DISPATCH                     ;
                                            04 0004E      RET                                                   ; 1379

; Routine Size:  79 bytes,    Routine Base:  CODE + 022E
```

```
1 %SBTTL 'START_STREAM'
1 ! Functional Description:
1 !                 ?desc
1 !
1 ! Formal Parameters:
1 !                 ?desc
1 ! Implicit Inputs:
1 !                 none
1 !
1 ! Implicit Outputs:
1 !                 none
1 !
1 ! Returned Value:
1 !                 none
1 !
1 ! Side Effects:
1 !                 none
1 !--
1 ROUTINE START_STREAM (
1         SCB       : REF $BBLOCK
1         )         : NOVALUE =
2 BEGIN
2
2 BIND OUTPUT = PSM$SRV [PSM$K_OUTPUT,0,0,0,0] : $BBLOCK;
2
2 LOCAL
2         STATUS_1
2         ;
2
2 SCB[PSM$V_ACTIVE] = 1;                    ! Mark queue started
2
2 STATUS_1 = BLISS (
2     .OUTPUT[SRV_A_SERVICE],               !  - output service
2     SCB,                                  !  - SCB address by reference
2     SCB[PSM$R_USER_CONTEXT_AREA],         !  - user context area
2     UPLIT (PSM$K_OPEN),                   !  - OPEN function
2     SCB[PSM$Q_DEVICE_NAME],               !  - Device name
2     SCB[PSM$L_DEVICE_STATUS]              !  - Device status
2     );
2
2 IF NOT .STATUS_1 THEN PSM$STORE_ERRORS (SCB, .STATUS_1);
2
2 SMB$SEND_TO_JOBCTL (
2         SCB[PSM$L_STREAM_INDEX],                  ! - stream number
2         SCB[PSM$L_REQUEST_RESPONSE],              ! - responding to ...
2         0,                                        ! - no accounting
2         0,                                        ! - no checkpoint
2         SCB[PSM$L_DEVICE_STATUS],                 ! - device status
2         SCB[PSM$T_CONDITION_AREA]                 ! - errors, if any
2         );
2
1 END;
```

```
                    0027D          .BLKB   3
00000004            00280 P.AAB:   .LONG   4                                  ;
```

```
                                        0000 00000 START_STREAM:
                                                        .WORD   Save nothing                        ; 1398
                        50        04   AC  D0 00002    MOVL    SCB, R0                             ; 1409
                    0C  A0             01  88 00006    BISB2   #1, 12(R0)                          ;
                        51 00000000G   00  D0 0000A    MOVL    OUTPUT, R1                          ; 1412
                                  54   A0  9F 00011    PUSHAB  84(R0)                              ; 1417
                                  4C   A0  9F 00014    PUSHAB  76(R0)                              ; 1416
                                  E2   AF  9F 00017    PUSHAB  P.AAB                               ; 1415
                                02D0   C0  9F 0001A    PUSHAB  720(R0)                             ; 1414
                                  04   AC  9F 0001E    PUSHAB  SCB                                 ; 1411
                        61             05  FB 00021    CALLS   #5, (R1)                            ; 1417
                        0C             50  E8 00024    BLBS    STATUS_1, 1$                        ; 1420
                                       50  DD 00027    PUSHL   STATUS_1                            ;
                                  04   AC  9F 00029    PUSHAB  SCB                                 ;
                 00000000G  00         02  FB 0002C    CALLS   #2, PSM$STORE_ERRORS                ;
              7E        04  AC 0000028E  8F  C1 00033 1$:  ADDL3   #654, SCB, -(SP)                 ; 1428
              7E        04  AC 00000054  8F  C1 0003C    ADDL3   #84, SCB, -(SP)                   ; 1427
                                       7E  7C 00045    CLRQ    -(SP)                               ; 1428
              7E        04  AC 00000144  8F  C1 00047    ADDL3   #324, SCB, -(SP)                  ; 1424
              7E        04  AC 0000022C  8F  C1 00050    ADDL3   #556, SCB, -(SP)                  ; 1423
                 00000000G  00         06  FB 00059    CALLS   #6, SMB$SEND_TO_JOBCTL              ; 1428
                                          04 00060    RET                                         ; 1431

; Routine Size:  97 bytes,    Routine Base:  CODE + 0284
```

```
%SBTTL 'START_TASK'
! Functional Description:
!                       ?desc
!
! Formal Parameters:
!                       ?desc
! Implicit Inputs:
!                       none
!
! Implicit Outputs:
!                       none
!
! Returned Value:
!                       none
!
! Side Effects:
!                       none
!--
ROUTINE START_TASK (
        SCB     : REF $BBLOCK
        )       : NOVALUE =
BEGIN

BIND
        PFLAGS = SCB[PSM$L_PRINT_CONTROL]       : $BBLOCK,
        SERVICE = PSM$SRV[PSM$K_MAIN_INPUT, 0,0,0,0] : $BBLOCK
        ;

SCB[PSM$V_BUSY] = 1;

IF NOT .TIMER_ACTIVE
THEN
    KEEP_ALIVE ();


! Advance the job sequence character if a new or restarted job
!
IF (.SCB[PSM$L_ENTRY_NUMBER] NEQU .SCB[PSM$L_LAST_ENTRY_NUMBER])
OR .REQUEST_FLAG_ (RESTARTING)
THEN
    BEGIN
    SCB[PSM$L_LAST_ENTRY_NUMBER] = .SCB[PSM$L_ENTRY_NUMBER];
    INCREMENT_ (SCB[PSM$B_JOB_BURST_CHAR]);
    IF .SCB[PSM$B_JOB_BURST_CHAR] GTRU %C '9'
    THEN
        SCB[PSM$B_JOB_BURST_CHAR] = %C '0';
    END;


! Always advance the file sequence character
!
INCREMENT_ (SCB[PSM$B_FILE_BURST_CHAR]);
IF .SCB[PSM$B_FILE_BURST_CHAR] GTRU %C 'Z'
THEN
    SCB[PSM$B_FILE_BURST_CHAR] = %C 'A';


```

```
:  550   1489  2 IF (.SCB[PSM$L_FORM_LENGTH] - .SCB[PSM$L_TOP_MARGIN]) -
:  551   1490  2     .SCB[PSM$L_BOTTOM_MARGIN] LSSU 3
:  552   1491  2 THEN
:  553   1492  2     PFLAGS[SMBMSG$V_PAGE_HEADER] = 0;
:  554   1493  2
:  555   1494  2 SIGNAL_IF_ERROR_ ($GETTIM (TIMADR = SCB[PSM$Q_TIME_PRINTED]));
:  556   1495  2
:  557   1496  2 IF 1                                THEN SERVICE_LIST_ (JOB_SETUP)        = 1;
:  558   1497  2 IF 1                                THEN SERVICE_LIST_ (FORM_SETUP)       = 1;
:  559   1498  2 IF .SEPARATE_FLAG_ (JOB_FLAG)      THEN SERVICE_LIST_ (JOB_FLAG)         = 1;
:  560   1499  2 IF .SEPARATE_FLAG_ (JOB_BURST)     THEN SERVICE_LIST_ (JOB_BURST)        = 1;
:  561   1500  2 IF 1                                THEN SERVICE_LIST_ (FILE_SETUP)       = 1;
:  562   1501  2 IF .SEPARATE_FLAG_ (FILE_FLAG)     THEN SERVICE_LIST_ (FILE_FLAG)        = 1;
:  563   1502  2 IF .SEPARATE_FLAG_ (FILE_BURST)    THEN SERVICE_LIST_ (FILE_BURST)       = 1;
:  564   1503  2 IF 1                                THEN SERVICE_LIST_ (FILE_SETUP_2)     = 1;
:  565   1504  2 IF .ITEM_PRESENT_ (FILE_IDENTIFICATION) THEN SERVICE_LIST_ (MAIN_INPUT)= 1
:  566   1505  2                                     ELSE PSM$STORE_ERRORS (.SCB, PSM$_NOFILEID);
:  567   1506  2 IF .ITEM_PRESENT_ (MESSAGE_VECTOR)THEN SERVICE_LIST_ (FILE_INFORMATION) = 1;
:  568   1507  2 IF .SEPARATE_FLAG_ (FILE_TRAILER) THEN SERVICE_LIST_ (FILE_TRAILER)     = 1;
:  569   1508  2 IF .SEPARATE_FLAG_ (JOB_RESET)    THEN SERVICE_LIST_ (JOB_RESET)        = 1;
:  570   1509  2 IF .SEPARATE_FLAG_ (JOB_TRAILER)  THEN SERVICE_LIST_ (JOB_TRAILER)      = 1;
:  571   1510  2 IF 1                                THEN SERVICE_LIST_ (JOB_COMPLETION)   = 1;
:  572   1511  2
:  573   1512  2 SCB[PSM$B_STATE] = 0;
:  574   1513  2
:  575   1514  2 PSM$FUNCTION_DISPATCH (.SCB)
:  576   1515  2
:  577   1516  1 END;


                                                    .EXTRN  SYS$GETTIM

                                001C 00000 START_TASK:
                                                    .WORD   Save R2,R3,R4                          ; 1450
                 52      04  AC  D0 00002           MOVL    SCB, R2                                ; 1456
          10     A2          02  88 00006           BISB2   #2, 16(R2)                             ; 1460
                 05    0000' CF  E8 0000A           BLBS    TIMER_ACTIVE, 1$                       ; 1462
        FE1F     CF          00  FB 0000F           CALLS   #0, KEEP_ALIVE                         ; 1464
        01C0     C2      58  A2  D1 00014 1$:       CMPL    88(R2), 448(R2)                        ; 1469
                             06  12 0001A           BNEQ    2$                                     ;
15      0140     C2          02  E1 0001C           BBC     #2, 320(R2), 3$                        ; 1470
        01C0     C2      58  A2  D0 00022 2$:       MOVL    88(R2), 448(R2)                        ; 1473
                 50    02A6  C2  9E 00028           MOVAB   678(R2), R0                            ; 1474
                             60  96 0002D           INCB    (R0)                                   ;
                 39          60  91 0002F           CMPB    (R0), #57                              ; 1475
                             03  1B 00032           BLEQU   3$                                     ;
                 60          30  90 00034           MOVB    #48, (R0)                              ; 1477
                 50    02A4  C2  9E 00037 3$:       MOVAB   676(R2), R0                            ; 1483
                             60  96 0003C           INCB    (R0)                                   ;
          5A     8F          60  91 0003E           CMPB    (R0), #90                              ; 1484
                             04  1B 00042           BLEQU   4$                                     ;
                 60      41  8F  90 00044           MOVB    #65, (R0)                              ; 1486
50        78     A2    0164  C2  C3 00048 4$:       SUBL3   356(R2), 120(R2), R0                   ; 1489
                 50      30  A2  C2 0004F           SUBL2   48(R2), R0                             ; 1490
                 03          50  D1 00053           CMPL    R0, #3                                 ;
                             05  1E 00056           BGEQU   5$                                     ;
```

```
                0124  C2            02  8A 00058          BICB2   #2, 292(R2)                          ; 1492
                            0234    C2  9F 0005D 5$:      PUSHAB  564(R2)                              ; 1494
        00000000G  00               01  FB 00061          CALLS   #1, SYS$GETTIM                       ;
                   53               50  D0 00068          MOVL    R0, STATUS                           ;
                   09               53  E8 0006B          BLBS    STATUS, 6$                           ;
                                    53  DD 0006E          PUSHL   STATUS                               ;
        00000000G  00               01  FB 00070          CALLS   #1, LIB$SIGNAL                       ;
                   53       0218    C2  9E 00077 6$:      MOVAB   536(R2), R3                          ; 1496
                01 A3               03  88 0007C          BISB2   #3, 1(R3)                            ; 1497
                   54       0154    C2  9E 00080          MOVAB   340(R2), R4                          ; 1498
             04    64               04  E1 00085          BBC     #4, (R4), 7$                         ;
                01 A3               04  88 00089          BISB2   #4, 1(R3)                            ;
             04    64               05  E1 0008D 7$:      BBC     #5, (R4), 8$                         ; 1499
                01 A3               08  88 00091          BISB2   #8, 1(R3)                            ;
                01 A3               10  88 00095 8$:      BISB2   #16, 1(R3)                           ; 1500
             04    64               01  E1 00099          BBC     #1, (R4), 9$                         ; 1501
                01 A3               20  88 0009D          BISB2   #32, 1(R3)                           ;
                   05               64  E9 000A1 9$:      BLBC    (R4), 10$                            ; 1502
                01 A3        40     8F  88 000A4          BISB2   #64, 1(R3)                           ;
                01 A3        80     8F  88 000A9 10$:     BISB2   #128, 1(R3)                          ; 1503
             06 01B2  C2            05  E1 000AE          BBC     #5, 434(R2), 11$                     ; 1504
                02 A3               01  88 000B4          BISB2   #1, 2(R3)                            ;
                                    0F  11 000B8          BRB     12$                                  ;
                         00000000G  8F  DD 000BA 11$:     PUSHL   #PSM$_NOFILEID                       ; 1505
                                    52  DD 000C0          PUSHL   R2                                   ;
        00000000G  00               02  FB 000C2          CALLS   #2, PSM$STORE_ERRORS                 ;
                            01B3    C2  95 000C9 12$:     TSTB    435(R2)                              ; 1506
                                    04  18 000CD          BGEQ    13$                                  ;
                02 A3               02  88 000CF          BISB2   #2, 2(R3)                            ;
             04    64               02  E1 000D3 13$:     BBC     #2, (R4), 14$                        ; 1507
                02 A3               08  88 000D7          BISB2   #8, 2(R3)                            ;
             04    64               06  E1 000DB 14$:     BBC     #6, (R4), 15$                        ; 1508
                02 A3               10  88 000DF          BISB2   #16, 2(R3)                           ;
                   04       01      A4  E9 000E3 15$:     BLBC    1(R4), 16$                           ; 1509
                02 A3               20  88 000E7          BISB2   #32, 2(R3)                           ;
                02 A3        40     8F  88 000EB 16$:     BISB2   #64, 2(R3)                           ; 1510
                            02A7    C2  94 000F0          CLRB    679(R2)                              ; 1512
                                    52  DD 000F4          PUSHL   R2                                   ; 1514
        00000000G  00               01  FB 000F6          CALLS   #1, PSM$FUNCTION_DISPATCH            ;
                                        04 000FD          RET                                          ; 1516

; Routine Size:  254 bytes,    Routine Base:  CODE + 02E5
```

```
%SBTTL 'STOP_STREAM'
! Functional Description:
!                 ?desc
!
! Formal Parameters:
!                 ?desc
! Implicit Inputs:
!                 none
!
! Implicit Outputs:
!                 none
!
! Returned Value:
!                 none
!
! Side Effects:
!                 none
!--
ROUTINE STOP_STREAM (
        SCB     : REF $BBLOCK
        )       : NOVALUE =
BEGIN

BIND OUTPUT = PSM$SRV [PSM$K_OUTPUT,0,0,0,0] : $BBLOCK;

LOCAL
        STATUS_1        ,
        STATUS_2
        ;


PSM$STORE_ERRORS (SCB, .SCB[PSM$L_STOP_CONDITION]);
SCB[PSM$V_RESET] = 1;
SCB[PSM$V_EOF] = 1;

STATUS_1 = BLISS (
    .OUTPUT[SRV_A_SERVICE],                 !  - output service
    SCB,                                    !  - SCB address by reference
    SCB[PSM$R_USER_CONTEXT_AREA],           !  - user context area
    UPLIT (PSM$K_CANCEL),                   !  - CANCEL function
    0,                                      !  - <not used>
    0                                       !  - <not used>
    );

IF NOT .STATUS_1 THEN PSM$STORE_ERRORS (SCB, .STATUS_1);

STATUS_2 = BLISS (
    .OUTPUT[SRV_A_SERVICE],                 !  - output service
    SCB,                                    !  - SCB address by reference
    SCB[PSM$R_USER_CONTEXT_AREA],           !  - user context area
    UPLIT (PSM$K_CLOSE),                    !  - CLOSE function
    0,                                      !  - <not used>
    0                                       !  - <not used>
    );

IF NOT .STATUS_2 THEN PSM$STORE_ERRORS (SCB, .STATUS_2);
```

```
;  636    1574  2 SCB[PSM$V_ACTIVE] = 0;                    ! Mark queue stopped
;  637    1575  2
;  638    1576  2 PSM$FUNCTION_DISPATCH (.SCB);
;  639    1577  2
;  640    1578  1 END;


                                    003E3          .BLKB   1
                         00000001   003E4 P.AAC:   .LONG   1                                    ;
                         00000002   003E8 P.AAD:   .LONG   2                                    ;


                                    000C 00000 STOP_STREAM:
                                                   .WORD   Save R2,R3                            ; 1535
                53 00000000G  00  9E 00002         MOVAB   OUTPUT, R3                            ;
                52 00000000G  00  9E 00009         MOVAB   PSM$STORE_ERRORS, R2                  ;
                50        04  AC  D0 00010         MOVL    SCB, R0                               ; 1548
                        0158  C0  DD 00014         PUSHL   344(R0)                               ;
                          04  AC  9F 00018         PUSHAB  SCB                                   ;
                62            02  FB 0001B         CALLS   #2, PSM$STORE_ERRORS                  ;
                50        04  AC  D0 0001E         MOVL    SCB, R0                               ; 1549
           10   A0      0404  8F  A8 00022         BISW2   #1028, 16(R0)                         ;
                51            63  D0 00028         MOVL    OUTPUT, R1                            ; 1553
                              7E  7C 0002B         CLRQ    -(SP)                                 ; 1555
                          C8  AF  9F 0002D         PUSHAB  P.AAC                                 ; 1556
                        02D0  C0  9F 00030         PUSHAB  720(R0)                               ; 1555
                          04  AC  9F 00034         PUSHAB  SCB                                   ; 1552
                61            05  FB 00037         CALLS   #5, (R1)                              ; 1555
                08            50  E8 0003A         BLBS    STATUS_1, 1$                          ; 1561
                              50  DD 0003D         PUSHL   STATUS_1                              ;
                          04  AC  9F 0003F         PUSHAB  SCB                                   ;
                62            02  FB 00042         CALLS   #2, PSM$STORE_ERRORS                  ;
                50            63  D0 00045 1$:     MOVL    OUTPUT, R0                            ; 1564
                              7E  7C 00048         CLRQ    -(SP)                                 ; 1566
                          AF  AF  9F 0004A         PUSHAB  P.AAD                                 ; 1567
             7E       04  AC 000002D0  8F  C1 0004D  ADDL3   #720, SCB, -(SP)                    ; 1566
                          04  AC  9F 00056         PUSHAB  SCB                                   ; 1563
                60            05  FB 00059         CALLS   #5, (R0)                              ; 1566
                08            50  E8 0005C         BLBS    STATUS_2, 2$                          ; 1572
                              50  DD 0005F         PUSHL   STATUS_2                              ;
                          04  AC  9F 00061         PUSHAB  SCB                                   ;
                62            02  FB 00064         CALLS   #2, PSM$STORE_ERRORS                  ;
                50        04  AC  D0 00067 2$:     MOVL    SCB, R0                               ; 1574
             0C   A0            01  8A 0006B         BICB2   #1, 12(R0)                            ;
                              50  DD 0006F         PUSHL   R0                                    ; 1576
        00000000G  00         01  FB 00071         CALLS   #1, PSM$FUNCTION_DISPATCH             ;
                                  04 00078         RET                                           ; 1578

; Routine Size:  121 bytes,    Routine Base:  CODE + 03EC
```

```
;  642          1579  1 %SBTTL 'STOP_TASK'
;  643          1580  1 ! Functional Description:
;  644          1581  1 !                 ?desc
;  645          1582  1 !
;  646          1583  1 ! Formal Parameters:
;  647          1584  1 !                 ?desc
;  648          1585  1 ! Implicit Inputs:
;  649          1586  1 !                 none
;  650          1587  1 !
;  651          1588  1 ! Implicit Outputs:
;  652          1589  1 !                 none
;  653          1590  1 !
;  654          1591  1 ! Returned Value:
;  655          1592  1 !                 none
;  656          1593  1 !
;  657          1594  1 ! Side Effects:
;  658          1595  1 !                 none
;  659          1596  1 !--
;  660          1597  1 ROUTINE STOP_TASK (
;  661          1598  1         SCB     : REF $BBLOCK
;  662          1599  1         )       : NOVALUE =
;  663          1600  2 BEGIN
;  664          1601  2
;  665          1602  2 BIND OUTPUT = PSM$SRV [PSM$K_OUTPUT,0,0,0,0] : $BBLOCK;
;  666          1603  2
;  667          1604  2 LOCAL
;  668          1605  2         STATUS_1
;  669          1606  2         ;
;  670          1607  2
;  671          1608  2 PSM$STORE_ERRORS (.SCB, .SCB[PSM$L_STOP_CONDITION]);
;  672          1609  2
;  673          1610  2 STATUS_1 = BLISS (
;  674          1611  2     .OUTPUT[SRV_A_SERVICE],             !  - output service
;  675          1612  2     SCB,                                !  - SCB address by reference
;  676          1613  2     SCB[PSM$R_USER_CONTEXT_AREA],       !  - user context area
;  677          1614  2     UPLIT (PSM$K_CANCEL),               !  - CANCEL function
;  678          1615  2     0,                                  !  - <not used>
;  679          1616  2     0                                   !  - <not used>
;  680          1617  2     );
;  681          1618  2
;  682          1619  2 IF NOT .STATUS_1 THEN PSM$STORE_ERRORS (SCB, .STATUS_1);
;  683          1620  2
;  684          1621  2 PSM$FUNCTION_DISPATCH (.SCB);
;  685          1622  2
;  686          1623  1 END;


                                        00465          .BLKB   3
                                 00000001  00468 P.AAE:  .LONG   1                                          ;


                                        000C 00000 STOP_TASK:
                                                       .WORD   Save R2,R3                                   ; 1597
                                 53 00000000G  00  9E 00002    MOVAB   PSM$STORE_ERRORS, R3                  ;
                                 52        04  AC  D0 00009    MOVL    SCB, R2                               ; 1608
```

```
                        0158   C2  DD 0000D          PUSHL   344(R2)                                  ;
                               52  DD 00011          PUSHL   R2                                      ;
                   63          02  FB 00013          CALLS   #2, PSM$STORE_ERRORS                    ;
                   50 00000000G 00  D0 00016          MOVL    OUTPUT, R0                              ; 1611
                               7E  7C 0001D          CLRQ    -(SP)                                   ; 1613
                          DA   AF  9F 0001F          PUSHAB  P.AAE                                   ; 1614
                        02D0   C2  9F 00022          PUSHAB  720(R2)                                 ; 1613
                          04   AC  9F 00026          PUSHAB  SCB                                     ; 1610
                   60          05  FB 00029          CALLS   #5, (R0)                                ; 1613
                   08          50  E8 0002C          BLBS    STATUS_1, 1$                            ; 1619
                               50  DD 0002F          PUSHL   STATUS_1                                ;
                          04   AC  9F 00031          PUSHAB  SCB                                     ;
                   63          02  FB 00034          CALLS   #2, PSM$STORE_ERRORS                    ;
                          04   AC  DD 00037 1$:      PUSHL   SCB                                     ; 1621
             00000000G 00      01  FB 0003A          CALLS   #1, PSM$FUNCTION_DISPATCH               ;
                                   04 00041          RET                                             ; 1623

; Routine Size:  66 bytes,    Routine Base:  CODE + 046C
```

```
;  688          1624  1 END
;  689          1625  0 ELUDOM


                                                        .EXTRN  LIB$SIGNAL, LIB$STOP

;                                PSECT SUMMARY
;
;       Name                    Bytes                       Attributes
;
;  DATA                             2  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)
;  CODE                          1198  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)


;                              Library Statistics
;
;                                      -------- Symbols --------      Pages       Processing
;       File                           Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1       18619        74         0      1000          00:01.8



;                                COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:MESSAGE/OBJ=OBJ$:MESSAGE MSRC$:MESSAGE/UPDATE=(ENH$:MESSAGE)

; Size:          1097 code + 103 data bytes
; Run Time:         00:27.3
; Elapsed Time:     01:07.6
; Lines/CPU Min:     3572
; Lexemes/CPU-Min: 29080
; Memory Used:  225 pages
; Compilation Complete
```

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MESSAGE
LIS

OUTPUT
LIS

SEPARATE
LIS

INPUT
LIS

PRTSMB
LIS

MEMORY
LIS

PSMMSG
LIS